

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
PUBLIC MEETING AND COMMENTS ON THE  
PREFERRED CITYWIDE REMEDY  
STUYVESANT HIGH SCHOOL  
NEW YORK, NEW YORK

ADDRESSING POLYCHLORINATED BIPHENYLS (PCBs)  
PRESENT IN THE CITY'S SCHOOLS  
June 3, 2014

Reported by:

Maria R. Lucarelli

Job No. 11925

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T R A N S C R I P T of the proceedings  
in the above-entitled matter being taken by MARIA  
R. LUCARELLI, a Notary Public of the State of New  
York, held at the STUYVESANT HIGH SCHOOL, 345  
Chambers Street, New York, New York 10282.

1 PUBLIC MEETING EPA PRESENTER:

2 JAMES S. HAKLAR, Ph.D  
3 PCB COORDINATOR  
4 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
5 REGION 2  
6 2890 Woodbridge Avenue, Building 10  
7 Edison, New Jersey 08837

8 PUBLIC MEETING CITY PRESENTER:

9 GARY HUNT  
10 VICE PRESIDENT & PRINCIPAL SCIENTIST  
11 TRC  
12 PILOT STUDY PROJECT TEAM  
13 650 Suffolk Street  
14 Lowell, Massachusetts 71854  
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1 (THE PROCEEDING OPENED AT 6:30 P.M. AS FOLLOWS:)

2  
3 MS. AYALA: Good evening, my name is  
4 Wanda Ayala and I am a community Involvement  
5 Coordinator for the EPA Region 2 in New York City,  
6 and I want to thank all of you for being here with  
7 us tonight.

8 The purpose of this meeting is to get  
9 your input on New York City's Preferred Remedy on  
10 the issue of PCBs in schools.

11 And, I want to introduce to you our EPA  
12 team tonight. We have Jim Haklar, who is going to  
13 be our presenter, and Susan Schulz. And, we have  
14 some subject matter experts here. Mark Maddaloni,  
15 who is a toxicologist and a risk assessor. For  
16 the City of New York, Gary Hunt will be the  
17 presenter. And, we have other subject matter  
18 experts from the City here also.

19 The way the meeting is going to work  
20 tonight is that we're going to have a brief  
21 presentation that's going to flow; there's going  
22 to be an EPA presentation and the City is going to  
23 have a part in it, and the two presentations are  
24 just going to flow into each other. And then  
25 we're going to be opening up the floor for

1 questions and comments. So, probably now -- oh,  
2 before that, I'm sorry, we have Spanish  
3 interpreters and Chinese interpreters in the room  
4 tonight for anyone that needs assistance with  
5 that. And, we have our stenographer, Maria, here  
6 with us because she's making a transcript of the  
7 meeting. When we open up the floor for questions  
8 and comments, there were number cards outside, so  
9 we're going to call people in the order -- the  
10 numerical order, so if you're number one, be  
11 ready.

12               So without further ado, I'll pass it  
13 over to Jim.

14  
15               (POWERPOINT PRESENTATION BEGINS)

16  
17               MR. HAKLAR: Thank you, Wanda.

18               And good evening, everybody. Let's  
19 just -- let's just ask ourselves: Why are we --  
20 why are we here tonight with all the rain? We're  
21 here tonight because we want to hear your comments  
22 on the City's plan to address PCBs in -- in the  
23 schools. And, you can provide comments tonight.  
24 You could send comments by regular mail to myself  
25 at that address (indicating) or you can e-mail

1 comments to pcbpreferredremedy.region2@epa.gov.

2 These addresses are on the flyers.

3           So, let's start with just a little bit  
4 of some background on PCBs. What are PCBs?  
5 They're manmade chemicals. They were manufactured  
6 for about 40, 50 years from about 1930 to the late  
7 1970s. They were very valuable in industry. They  
8 were almost like -- like the miracle chemical.  
9 They had very special properties. They -- they  
10 were good -- they were -- they were used in  
11 electrical equipment. They were used in building  
12 materials. And, just to give you an example. In  
13 caulk, it was -- PCBs were put into caulk to make  
14 it flexible and to last long, but there's a  
15 downside to the PCBs, that they are hazardous and  
16 they're potentially cancer-causing, and because  
17 of -- of that, in the late 1970s, Congress and EPA  
18 banned the manufacture of the chemical.

19           Okay. So -- so, how did we actually  
20 find -- find out about PCBs in the New York City  
21 schools? Well, there were several private  
22 individuals that would walk up to -- walk up to  
23 several schools and -- and collect pieces of the  
24 caulk and they would have the caulk analyzed at a  
25 laboratory and once they -- they did that, they

1 provided it to EPA and actually to the -- to  
2 the -- to -- to the newspaper, to the New York  
3 Daily News, the -- the laboratory results, and  
4 once we saw the results, we decided this is a  
5 situation that needs to be -- needs to be dealt  
6 with, and we started having discussions with New  
7 York City and those discussions lead to a -- an  
8 agreement, or formal agreement, which -- which we  
9 call a consent agreement with New York -- with New  
10 York City to deal with the situation. And, that  
11 agreement was signed by EPA in New York City like  
12 about four-and-a-half years ago. It required that  
13 the City -- to perform a study, which we -- we  
14 call a Pilot Study, of PCBs in five older schools  
15 and those five schools were -- were selected to be  
16 representative of typical school construction, one  
17 from each borough, and -- and they did have PCBs  
18 in the building material. And, based on -- based  
19 on what was found during the Pilot Study, New York  
20 City prepared a report with -- with their  
21 recommendations, which -- and -- and -- and  
22 that -- those recommendations are what are called  
23 a Preferred Citywide Remedy.

24 Okay. Now, I'm going -- I'm going to  
25 hand this off to Gary Hunt from -- from TRC, who

1 is a consultant with New York City, and he will  
2 discuss, in a little more detail, the Pilot Study.

3 MR. HUNT: Thank you, Jim.

4 Good evening, everybody. Thanks for  
5 coming. I know it's raining outside. I just got  
6 in here just in time before it came. I'm Gary  
7 Hunt. I work for TRC Corporation. I'm the  
8 principal scientist and vice president, and I'm a  
9 member of the project team that's been working on  
10 the Pilot Study for the City of New York for the  
11 last four years, and I'm here tonight to give you  
12 a summary of the Pilot Study and then the citywide  
13 remedy.

14 We're going to talk about the background  
15 of the Pilot Study addressing PCB in caulk, the  
16 results, the Preferred Citywide Remedy, and then  
17 the long-term monitoring.

18 PCBs are still talked about on a  
19 widespread industrial use. They were manufactured  
20 during the period of 1925 to 1978 and 1.4 billion  
21 pounds were manufactured and placed and used  
22 principally in electrical components, like  
23 transformers, capacitors, and some percentage of  
24 it was actually used in building materials, like  
25 caulk, and capacitors, for ballasts and other



1 building materials. Beginning in 1950, caulk  
2 contained PCBs was used in constructing big  
3 buildings throughout the entire country,  
4 notwithstanding the manufacturing ban of PCBs in  
5 1978 with the onset of the Toxic Substances  
6 Control Act or TSCA. And then, EPA issued some  
7 guidance on caulk in September of 2009, and this  
8 is again focused on PCBs contained in caulk within  
9 building materials.

10 The Pilot Study. In January of 2010,  
11 the City reached an agreement with EPA, which is  
12 called a Consent Agreement and Final Order,  
13 regarding what will be done with respect to  
14 investigating the occurrences of caulk within five  
15 pilot schools. These pilot schools were chosen  
16 with EPA as being representative of the New York  
17 Citywide population in the school buildings. The  
18 ultimate goal of the Pilot Study was to develop a  
19 citywide approach for a remedy for assessing and  
20 managing caulk in schools built between the  
21 prevalent period of 1950 to 1978. By the way,  
22 this is the first and only study in the US of its  
23 type and magnitude.

24 What was done? Some background. We  
25 looked at a number of remedial alternatives for

1     caulk.   Okay.   The primary focus initially was on  
2     caulk, PCB caulk.   We looked at a removal and  
3     replacement of the caulk, a patching and repair of  
4     what appeared to be deteriorating PCB caulk, in  
5     pilot schools, and then encapsulation of the  
6     caulk, which is a way of putting a coating on it  
7     to try to prevent PCBs from migrating out of the  
8     caulk into the air.   Then, after an initial  
9     investigation, we began it in other schools;  
10    removal of windows with PCB caulk, and then the  
11    removal of light ballasts.   One particular school  
12    was investigated and then as a supplemental  
13    remedy, the removal of ballasts was instituted in  
14    all of the other schools, and this turned out to  
15    be the principal source of PCBs in the schools.

16                To back up, there were five schools  
17    chosen:   PS 170X, 176X was basically investigated  
18    for patch of repair of PCB caulk; PS 199, the  
19    focus was the removal and replacement of PCB caulk  
20    as the remedial alternative; PS 309, a  
21    encapsulation of the caulk, as I mentioned,  
22    coatings were applied to keep PCBs from migrating;  
23    PS-3R was focusing initially for ballasts removal,  
24    ultimately ballasts removal was instituted in the  
25    other schools as well as a supplemental remedy;

1 and window replacement in PS 183Q. Last, but not  
2 least, the PCB light fixtures were ultimately  
3 removed from all five pilot schools and this is  
4 important because this was identified as the  
5 principal source of PCBs within a school where  
6 those ballasts were.

7           What type of monitoring that was done.  
8 Monitoring was done pre-remedial activity, post-  
9 remedial activity, so a large number of samples  
10 were taken in the pilot studies. Pre-remedial  
11 investigations looked at the air, dust, and soil:  
12 Soil outside of the school; air and dust within  
13 the school. Also, post-remedial PCB air and dust  
14 wipe sampling from the exact same location, so we  
15 could evaluate changes and trends before it  
16 happened. That's all.

17           Wipe samples; 430 wipe samples pre- and  
18 post-remedial activities, which is dust, cleaning,  
19 removal, normal maintenance-type activities in the  
20 schools were conducted. Only in one of those 430  
21 samples was it found to be above, initially, the  
22 PCB Guidance Values, which is 10 micrograms per  
23 100 square centimeters, so you wipe a 100 square  
24 centimeter surface and you have it analyzed and  
25 the value is 10 micrograms. And, on re-analysis

1 of that one location was found not to be above the  
2 guidance and values, so everything is within the  
3 EPA Guidance and Values, and what we concluded  
4 from that, routine housekeeping practices were  
5 sufficient to keep PCBs in the schools, the pilot  
6 schools, below the guidance values. That was good  
7 timing.

8 Air samples. We took 1100 PCB air  
9 samples in the pilot schools, again pre- and  
10 post-remedial alternatives that were conducted in  
11 each of those schools; not all of the same  
12 remedial alternatives were done at each and every  
13 school. Again, this is a Pilot Study research to  
14 identify what worked and what didn't work. The  
15 greatest reductions in airborne PCB were seen  
16 following the removal of the light ballast  
17 fixtures, and that was through all the schools  
18 that were examined. And this, as I said, was done  
19 in the initial focus of the Pilot Study, but it  
20 became very apparent early on in the study that  
21 ballasts were contributing to PCBs, particularly  
22 in the air and then the removal of those needed to  
23 be a priority.

24 Discussions of results. PCBs in  
25 buildings is a very complex problem. It's not

1 easy. And, early on, we start to take the caulk  
2 out, encapsulate the caulk, fix the caulk, the  
3 problem is gone; not so. We've got ballasts to  
4 worry about, we've got caulk to worry about, and  
5 other sources that may be present. Light fixtures  
6 should be addressed first and the City has,  
7 indeed, made that their number one priority in  
8 this citywide remedy to remove the ballasts in  
9 those schools that contain the capacitors of PCBs  
10 in them. The caulk needs to be managed and  
11 assessed on an ongoing basis. There's no magic  
12 solution for the caulk. No one thing works best  
13 everywhere. PCBs may also be present on the  
14 building materials and furnishings and these can  
15 be referred to as potential secondary sources, not  
16 as high in concentration as your primary sources  
17 of ballasts and caulk, but they may be present  
18 nonetheless. And, more research is really needed.

19           A little about the ballasts removal  
20 program, which is a focal point or one of the  
21 significant pieces of the Preferred Citywide  
22 Remedy. Two-hundred-and-thirty-eight school  
23 buildings were identified as having the ballasts  
24 that may contain PCB-contained capacitors. Again,  
25 PCBs were used in electrical components, such as

1 capacitors. These projects are early ongoing in  
2 173 of those schools, and this program is  
3 scheduled to be completed by December 31, 2016.  
4 In other words, all ballasts containing PCBs in  
5 all the New York City schools will have them  
6 removed by December 31, 2016.

7           The citywide remedy. Of course, as I  
8 mentioned just a moment ago, are the preferred or  
9 the most -- the most important PCB Preferred  
10 Citywide Remedy is the removal of the PCB ballasts  
11 and that program is in the works and it's working  
12 as we speak. Protocol to inspect and respond to  
13 ballast issues when there's a ballast failure or  
14 event, there has been a protocol that's been  
15 developed with EPA for dealing with that.

16 Implement best management practices. Again,  
17 inspection and remediation of caulk ensued.  
18 Inspect and maintain ventilation systems per their  
19 design ventilation is an important piece of the  
20 program. Remove caulk during capital improvement  
21 projects, so if there's a capital improvement  
22 project in a school that involves caulk, that  
23 caulk would be -- would be removed as part of that  
24 capital improvement project under EPA-approved  
25 construction protocols. Evaluate, excavate and

1 replace any soil associated with capital  
2 improvement project. And again, this is exterior  
3 soils, outside the school building, that may have  
4 PCB contamination. The long-term monitoring  
5 program continues, and, I'll have a slide on that  
6 in a moment, that continues as we speak in the  
7 pilot schools. And, additional studies have been  
8 worked out and have been developed with EPA to  
9 continue to gather data to determine the next  
10 steps and expand the research.

11 The long-term monitoring program. Air  
12 sampling continues to take place in the pilot  
13 schools and current with the heating seasons;  
14 heating season on, heating season off. Bulk  
15 sampling of remediated caulk and wipe sampling of  
16 encapsulated caulk. In other words, encapsulated  
17 caulk has the coating on it. We're looking at the  
18 surfaces over time to see if any PCBs migrate to  
19 the surfaces after the encapsulation process has  
20 taken place.

21 MR. HUNT: I think that's it. Is there  
22 one more slide?

23 MS. SCHULZ: No.

24 MR. HUNT: No.

25 I'll give it back to Jim.

1 MR. HAKLAR: Thank you, Gary.

2 MR. HUNT: Thank you.

3 MR. HAKLAR: All right. Let's talk  
4 a little bit about what EPA's agreement with New  
5 York City has in it. One of the things that the  
6 agreement requires is that EPA hold what's called  
7 a peer review. Now, what is a peer review? You  
8 have to think of it as if you were writing  
9 something that you were going to mail out and then  
10 you gave it to someone else impartial to review,  
11 just to make sure that there were no mistakes  
12 or -- or errors, and we had technical experts  
13 review the City's work. The agreement with New  
14 York City also required EPA to hold this public  
15 meeting and that's why we're holding it tonight  
16 and we are holding it in the other boroughs.

17 Okay. So, some points about the peer  
18 review. The peer review was what we call  
19 independent. EPA had its contractor manage the  
20 peer review. We did not have any direct contact  
21 with the peer reviewers. There were three --  
22 three professionals: Two reviewers were from  
23 private industry, the environmental field; and one  
24 was from Academia, a major university in the  
25 northeast. And, EPA, provided our consultants



1 too, with a set of questions for the peer  
2 reviewers to answer, and those questions were  
3 shared with New York City for their input prior to  
4 giving them to the -- to the consultant.

5 All right. So, once -- once the peer  
6 reviewers were done with the overall documents,  
7 EPA's consultant prepared a final report for us.  
8 We reviewed the report and we developed our own  
9 document on our perspectives on what the peer  
10 reviewers found and both of those documents can be  
11 found at this website (indicating).

12 Now, I'd like to talk a little bit about  
13 the major findings of the peer review. Now,  
14 overall, the peer reviewers found the City's  
15 report to be comprehensive. They also felt  
16 that -- that the City's consultant used  
17 appropriate methods during the field work.

18 We had some very specific questions for  
19 the peer reviewers and one of those questions  
20 pertained to what we -- what we called the City's  
21 re-occupancy protocols. If you're aware, you have  
22 older fluorescent lighting, that older fluorescent  
23 lighting could contain PCBs in an electrical  
24 component called a ballast and if that ballast is  
25 very old, it could fail, it could leak or smoke.

1 And, the City has an established protocol for  
2 responding to those instances of leaks or smokes.  
3 It's basically a four-step procedure where they  
4 evacuate the people in the infected area, they  
5 notify the appropriate parties, they ventilate and  
6 they clean, and then they perform what's called  
7 wipe sampling where they actually take a -- a --  
8 where -- where the City's contractor will take a  
9 special gauze and rub it over -- over a surface  
10 in, let's say, for example, the classroom desk or  
11 a ledge, to see if the ballast -- if the leaking  
12 or smoking ballast had positive PCBs. We asked  
13 the peer reviewers: Was wipe sampling alone  
14 sufficient for -- for this -- this whole -- this  
15 step of sampling and some of the peer reviewers  
16 believed that wipe sampling alone was not  
17 adequate.

18 We also asked, you heard Gary talk  
19 about, the -- the -- the options that were  
20 evaluated during the Pilot Study on how to deal  
21 with PCB caulk. We ask -- or we've asked the peer  
22 reviewers to -- to come up with -- with additional  
23 recommendations. And, one of the things you have  
24 to realize is that PCBs, if they're in building  
25 materials, there's some potential for them to

1 move. If you had PCB caulk, which was over, let's  
2 say, masonry, or brick, or concrete, in a lot of  
3 instances, those PCBs may start moving into the  
4 concrete and they not only can move into the  
5 concrete, but they can move into the air, and what  
6 EPA's Office of Research and Development found was  
7 that, that movement of the PCBs into the air was  
8 the most significant, what we call, route of  
9 exposure. That's the main way that people in a  
10 building can get exposed to PCBs by inhaling them  
11 from the air. Now, the peer reviewers, what  
12 they -- what they recommended was -- was looking  
13 at physical barriers; plastic tape, like chips in  
14 board, things like that, or even aluminum strips  
15 to -- to isolate the PCBs or even to chemically  
16 treat the caulk to reduce the levels of PCBs.

17 All right. One of the other areas that  
18 we've asked the peer reviewers to look at was  
19 prioritizing schools to address PCBs. We've  
20 got -- we've got several hundred schools. It's a  
21 major, major scope, and how do you deal with it?  
22 And, some of the peer reviewers believed that  
23 proactively addressing PCBs -- the PCBs would  
24 significantly reduce exposure. Well, what are we  
25 talking about here? We're talking about actually

1 going out there now instead of waiting for routine  
2 construction or renovation projects. And, all  
3 three reviewers believed that air sampling would  
4 be an effective component of prioritizing the  
5 schools.

6 And, we also had -- we -- we also had a  
7 question on ventilation and all three peer  
8 reviewers recommended that the ventilation in the  
9 schools be made the best setting possibly that it  
10 could. Now, not only would that help reduce  
11 exposure, it reduces concentrations of the PCBs in  
12 the -- in the air, but also helps for things like  
13 mold, you know, similar -- similar situations and  
14 this is very important because in a lot of  
15 schools, the schools were initially built with  
16 windows that could open. Well, when -- when --  
17 when those schools are renovated, in certain  
18 instances, they're renovated with windows that  
19 can't open and -- and that -- and that's a  
20 concern because -- because the schools need the  
21 windows to open for the ventilation systems to  
22 operate properly. We also -- we also had the peer  
23 reviewers look at housekeeping or what we call  
24 best management practices. Now -- now, a few  
25 minutes ago, Gary mentioned about how PCBs were

1 put into building caulk to make it flexible.

2 Well, that was very -- a very successful operation  
3 because there are incidences when we found caulk  
4 that's 40 years old that looks like it was put in  
5 place a month ago, and it really keeps the caulk  
6 flexible. But we looked at -- but we asked the --  
7 the peer reviewers: Should the City be focusing  
8 on intact caulk, you know, flexible caulk, should  
9 they be looking at deteriorated caulk? If you  
10 went outside a building, sometimes you'll see  
11 caulk that -- that -- that looks like it's flaking  
12 or -- or peeling. And, the -- and the peer  
13 reviewers basically had varied responses. One  
14 said: Look at -- look at the intact caulk;  
15 another said: Look at both. So it -- it varied.

16 Okay. Now, we also asked the peer  
17 reviewers with a question on soil. You heard Gary  
18 mention a little bit about -- about the soil  
19 around the schools. We believe that where there  
20 was old construction, there -- involving PCB  
21 caulk, there could -- there's the possibility of  
22 -- of caulk, little pieces of caulk, having gotten  
23 into the soil and contaminating the soil, and the  
24 peer reviewers didn't believe that by going out  
25 now and looking at all the soil in the schools,

1     that, that would significantly reduce the risk or  
2     the exposure and that's because, again, the main  
3     route, the main way that people get exposed is  
4     through -- through the air, not through touching  
5     or walking over soil.

6             Okay. So, let's start talking about  
7     next steps. EPA's taking comments until the end  
8     of the month. And, in accordance with our formal  
9     agreement with New York City, once we review all  
10    the public comments and we take into consideration  
11    the peer review responses, we may incorporate  
12    revisions to the City's Preferred Citywide Remedy.

13            Some more next steps. The City's  
14    Preferred Citywide Remedy discussed -- discussed  
15    some information gaps and after discussing  
16    information gaps with the City, EPA recommended  
17    two areas for research and one of them, the first  
18    one, is testing different sampling methods for  
19    indoor air and caulk; and then the second one  
20    was -- was -- was really looking at, really trying  
21    to refine or get a better handle on what is the  
22    contribution of -- of the PCBs in the caulk or  
23    other building materials to the indoor air. We  
24    know that removing the light fixtures is a really  
25    good step, and -- but is that enough? Is that the

1    only thing or is there other -- other -- are  
2    there -- are -- is the caulk or other building  
3    materials contributing to the PCBs in the air.

4            All right. And, just to start wrapping  
5    up, just a couple points to remember. There's  
6    been a lot of work done in the last four-and-a-  
7    half years, a lot of good scientifically valuable  
8    work, on -- on PCBs in schools. We have a better  
9    understanding of where PCBs can be found in  
10   schools. And -- and, just to reiterate, by  
11   removing the light fixtures, the City's taking a  
12   major source of -- of -- of PCBs out of the  
13   schools.

14           And -- and -- and lastly, your comments  
15   really do matter.

16           And, just -- this is just a recap of the  
17   City's Preferred Citywide Remedy.

18           And again just where you can send  
19   comments to (indicating).

20           And, at this -- and, at this point,  
21   we'll -- I believe we'll open up the meeting to  
22   comments.

23  
24           (POWERPOINT PRESENTATION ENDS)

25           MS. AYALA: Before me move to questions

1 and comments, I would just like to acknowledge  
2 some representatives for some local electives that  
3 are here tonight and they have brief statements to  
4 make.

5  
6 (STATEMENTS FROM REPRESENTATIVES OF LOCAL ELECTIVES)  
7

8 MS. BANGS: Hi everyone, my name is  
9 Molly Bangs. I'm a community liaison for New York  
10 City Council Member Cory Johnson, and I will be  
11 reading testimony for Council Member Johnson  
12 tonight.

13 Good evening, I am Council Member Cory  
14 Johnson, and I represent District 3 in the New  
15 York City Council, which covers Hell's kitchen,  
16 Chelsea, the West Village, and parts of Soho, and  
17 the Upper West Side.

18 I'd like to thank the United States of  
19 Environmental Protection Agency for holding this  
20 hearing today and for giving me the opportunity to  
21 testify. Polychlorinated Biphenyls, or PCBs, are  
22 toxic mixtures of manmade chemicals used in  
23 fluorescent light ballasts. In 1979, the EPA  
24 banned the use of PCBs, except in totally enclosed  
25 equipment because of their dangerous toxic



1 effects. However, a significant number of light  
2 ballasts installed prior to these bans may still  
3 contain PCBs and are still in use in many American  
4 schools, including public schools in my council  
5 district. I am here to testify on the Pilot Study  
6 put forth by the New York City Department of  
7 Education and the New York City School  
8 Construction Authority as well as the external  
9 peer reviews conducted by the EPA in response to  
10 the Pilot Study. During the prior study, four  
11 different remedial approaches to confront the  
12 issue of PCBs were initially identified. The  
13 patch or repair of caulk, the encapsulation of  
14 caulk, the removal of old caulk and replacement of  
15 new caulk, and the best management practices,  
16 which is to say, the use of remedial sampling to  
17 get from each pilot school building to evaluate  
18 its effectiveness of current operation and  
19 maintenance practices. Two approaches were added  
20 as the study progressed; the removal of PCB caulk  
21 associated with window frame removal or  
22 replacement as well as the removal and replacement  
23 of light fixtures that has ballasts that contain  
24 PCBs. The Pilot Study resulted in numerous  
25 findings. In terms of caulk to be found in PCBs

1 from original caulk, it can penetrate and  
2 contaminate replacement caulk, meaning that  
3 without extra efforts to isolate and/or treat  
4 original caulk, the removal or replacement of PCB  
5 caulk using the Pilot Study is ineffective. In  
6 terms of encapsulation, the coatings used in  
7 methods employed in the Pilot Study also did not  
8 prevent caulk from migrating to the encapsulated  
9 layer to the surface over time. Perhaps most  
10 significantly, the study then found that there are  
11 materials containing PCBs other than caulk that  
12 contribute to higher PCB concentrations in room  
13 air. One of the largest sources of the airborne  
14 PCBs appear to be from leaking light fixture  
15 ballasts. The removal or replacement of these  
16 light fixtures proved to significantly reduce PCB  
17 levels. The amount of fresh air that enter  
18 buildings also significantly lowered PCB levels  
19 calling for better ventilation in schools. Carbon  
20 filtration too proved itself to be effective in  
21 reducing airborne PCBs. The pilot studies  
22 declared that between caulk remediation by the  
23 light fixture and ballast removal, cleaning and  
24 ventilation, the Pilot Study showed an average  
25 decrease in 74 percent demonstrating its overall

1 effectiveness. I am pleased that this Pilot Study  
2 has taken place and agree with the following: The  
3 need to remove the light fixtures ballasts that  
4 have been accountable for much airborne PCBs as  
5 well as the need for enhanced ventilation systems  
6 in schools. However, there are also elements to  
7 the study, such as its approach to PCB in caulk  
8 that are clearly problematic and require further  
9 attention and action. As highlighted by the EPA  
10 in their external peer review, emissions in caulk  
11 as well as leaking ballasts in light fixtures have  
12 also contaminated a wide range of other building  
13 materials over time, which may be re-emitting PCBs  
14 into the air. I agree with the EPA's experts in  
15 that it decontamination of treatment options  
16 should be integrated into caulk removal options.  
17 Giving that recontamination is so common,  
18 isolating PCB-containing caulk to eliminate  
19 migration into both replacement caulk and  
20 encapsulating coating is imperative. I also agree  
21 that air testing is a better option than an  
22 individual inspection protocol as it can detect  
23 emissions from PCB sources other than just light  
24 ballasts. Given the high number of school  
25 children exposed to PCBs from caulk, light

1 fixtures, and secondarily contaminated materials  
2 as well as the cost in nature of ridding schools  
3 of the PCBs, the EPA has stated the imperative  
4 nature of choosing the best long-term solutions to  
5 the problem. I support that finding and ask for a  
6 swift implementation of these actions.

7 Thank you again for allowing me to  
8 submit this testimony this evening.

9 MS. AYALA: Next speaker.

10 MS. MIZRAHI: Paul very kindly agreed to  
11 switch places with me.

12 My name is Celine Mizrahi. I'm from  
13 Congressman Jerrold Nadler's office, and I'm going  
14 to read some testimony on his behalf. I'm going  
15 to give an abbreviated version tonight and then  
16 submit a longer written testimony.

17 Thank you for the opportunity to submit  
18 testimony at today's public hearing. As the  
19 congressman for the 10th Congressional District,  
20 I've been deeply involved in the issue of PCB  
21 remediation in our schools for many years now and  
22 have long believed that this is an issue of  
23 critical importance for the health and well-being  
24 for school children and staff. Public hearings  
25 like -- public hearings like today, several

1 throughout the City, were all envisioned as a  
2 critical step in the PCB testing and remediation  
3 process as part as the consent agreement and by  
4 the advocates and elected officials working on  
5 this issue. It is my understanding that EPA has  
6 some questions as well, some serious questions, to  
7 reflect on as we move forward. As always, my goal  
8 is to make certain that the children and the staff  
9 in our public schools are safe from the dangers of  
10 PCBs and that parents and school communities are  
11 fully informed. The light ballast remediation has  
12 been moving forward rapidly and I applaud the EPA  
13 for their partnership and efforts on this. As  
14 this process continues, I urge the EPA to keep  
15 school communities informed of plans for  
16 remediation in their schools, for the parents who  
17 have concerns or questions or need answers. It is  
18 my understanding that caulk remediation has  
19 continued to present serious difficulties. In  
20 some instances, such as in PS 199 in my district  
21 has required repeated attempts to remove the PCBs  
22 and treat the caulk with very nice results. I  
23 urge the DOE to continue working with EPA experts  
24 on this issue to explore all of the possibilities  
25 for remediating PCB-contaminated caulk, including

1 those discussed by the EPA's peer reviewers.

2 There is a critical importance that we find the

3 permanent solution for contamination in the

4 schools and classrooms. And, we cannot depend on

5 the ventilation, will not work in all classrooms

6 at all times and we must work together to find a

7 comprehensive solution. Additionally, throughout

8 the entire process of advocating for PCB

9 remediation in our schools, I've joined with other

10 elected officials, advocates and parents it calls

11 for ongoing air quality testing in the

12 contaminated schools and the re-occupancy

13 protocols that were mentioned earlier. We simply

14 cannot know whether the PCB problem is ongoing

15 without testing the air and the effects in

16 classrooms in schools. I urge the DOE to verify

17 the results of remediation of light ballasts and

18 the caulk by doing comprehensive air sampling in

19 the infected and potentially infected schools in

20 some areas. This will give comfort to parents in

21 school communities and will also allow for the

22 City to continue improve on its remediation

23 techniques and approaches. Simply put, if

24 something is not working, we need to know, so that

25 we can find a solution. And without comprehensive

1     etiquette, that does not seem possible.

2                 Lastly, I urge the DOE to make their  
3     report summarizing the Pilot Study results  
4     accessible to parents and to make the information  
5     in the report easily digestible and understood, so  
6     that we can have full public engagement on this  
7     issue. For example, I don't know if there are  
8     plans to make this day's presentations available  
9     on the daily website or to the schools, but that  
10    would be a great first step.

11                Thank you for your period of  
12    consideration and for all your efforts on this  
13    important issue. I hope that we can continue to  
14    work together to make certain that our schools are  
15    no longer contaminated by PCBs and that the public  
16    is informed by means of these important facts.

17                Thank you.

18                MR. SAWYIER: Everyone, Good evening, my  
19    name is Paul Sawyer. I am here to give testimony  
20    on behalf of Assembly Member Linda B. Rosenthal.

21                I am Assembly Member Linda B. Rosenthal,  
22    and I represent the Upper West Side and parts of  
23    Clinton/Hell's Kitchen in Manhattan. Since PCBs  
24    were first observed in window caulking in PS 199  
25    in Manhattan, a public elementary school in my

1 district, and one of the five Pilot Study schools,  
2 I've been outspoken in my advocacy for a  
3 comprehensive and expedited remediation plan that  
4 prioritizes the health and safety of the City's  
5 students, teachers, administrators, and other  
6 school staff. PCBs are a known neurotoxins and  
7 suspected carcinogen; long-term exposure have been  
8 linked to immune, reproductive, nervous, and  
9 endocrine system problems.

10 After the discovery at PS 199, we  
11 learned that PCBs were present in window and other  
12 caulking and lighting ballasts at nearly 800  
13 public school buildings citywide. Shortly  
14 thereafter, the EPA, the City of New York, with  
15 the School Construction Authority entered into a  
16 Consent Agreement and Final Order, the subject of  
17 this hearing today, to undertake a Pilot Study at  
18 five public school buildings to evaluate the  
19 efficacy or remediation efforts of PCB caulk and  
20 other sources, such as lighting ballasts.

21 After years of battling the Bloomberg  
22 Administration to expedite its timeline for PCB  
23 ballast remediation, I am pleased that all public  
24 school buildings containing PCB ballasts will be  
25 remediated by December 2016, even despite the fact



1     that this move came only after a legal challenge.  
2     I am also gratified that the City has undertaken a  
3     rigorous Pilot Study to determine which methods  
4     will be most effective in the long term to protect  
5     our children and their teachers against PCB  
6     exposure.

7             Though the report upon which my comments  
8     are based is comprehensive, it is a complex  
9     document replete with scientific jargon, acronyms,  
10    mathematical statistics and references to other  
11    documents not included within the report itself.

12    I am concerned that the average parent, who works  
13    a full-time job and then comes home to child care  
14    responsibilities, does not have the time necessary  
15    to parse through this report and the voluminous  
16    outside documents. It would be helpful if this  
17    report and other materials could be made more  
18    accessible to parents, who obviously have the most  
19    significant interest in ensuring that the City's  
20    plan is comprehensive and effective.

21            With respect to potentially leaking  
22    lighting ballasts, I continue to have serious  
23    reservations of the efficacy of the visual  
24    inspection program performed by custodial staff.  
25    While actively leaking PCB ballasts often emit or

1 leave behind a brown or blackish syrup-like  
2 substance, sometimes they do not, and many PCB  
3 leaks are both colorless and odorless. Given this  
4 reality, I recommend that the City pursue other  
5 more effective avenues to identify potentially  
6 leaking lighting ballasts. In addition, although  
7 I am aware that the SCA has created visual  
8 inspection guidance documents for custodial staff,  
9 I strongly believe that guidance should be subject  
10 to EPA review. What's more, the report provides  
11 no safety protocol for the custodial staff who  
12 have been tasked with the unenviable  
13 responsibility of searching school buildings for  
14 toxic leaks. Their health and safety must be  
15 prioritized.

16 In terms of the plans for a response to  
17 an actively leaking or smoking ballast, air  
18 testing, and not merely wipe sampling, must be  
19 performed to ensure that the ambient concentration  
20 with PCBs post remediation do not exceed guidance  
21 levels set by the EPA for safe exposures to  
22 school-aged children. I am the sponsor of  
23 legislation that would have required a two-year  
24 PCB lighting ballast remediation timeline and  
25 post-remediation air testing. If we are really

1 serious about our commitment to student and  
2 teacher safety, air testing must be performed  
3 post-remediation in all schools with active PCB  
4 leaks. The experiences of the PS 199 community in  
5 my district have been illustrative despite the  
6 fact that countless wipe samples have shown  
7 relatively low PCB levels, air testing has  
8 routinely demonstrated that ambient PCB levels  
9 have been higher than EPA Guidance. Albeit  
10 expensive, post-remediation air testing is the  
11 only way to truly guarantee student and teacher  
12 health. Historically, when a potentially or  
13 actively leaking PCB lighting ballast has been  
14 discovered in a classroom or rooms, the affected  
15 rooms have been evacuated and closed until testing  
16 determines that the room is safe for occupancy or  
17 the offending PCB ballasts have been removed and  
18 replaced. However, the plan does not address  
19 classroom evacuation. It is critical that this  
20 plan is clear; that a room must be evacuated until  
21 the class is confirmed to be PCB-free by ambient  
22 air testing.

23 I am glad to see that the plan includes  
24 a recommendation to create a Citizens  
25 Participation Plan to ensure that the affected

1 school communities and the public at large have an  
2 opportunity to participate in PCB remediation  
3 process going forward. It is critical that the  
4 public be regarded as a partner, yet I continue to  
5 harbor concerns. Even after the passage of Local  
6 Law 68, which requires school and parental  
7 notification of PCB activity within a certain time  
8 period, the previous Administration routinely  
9 failed to notify parents and school administrators  
10 of active PCB leaks or catastrophic PCB ballast  
11 failures within the legally mandated time period.  
12 I recommend that the final proposal contain a  
13 detailed plan for engaging and communicating with  
14 the public about the remediation progress and  
15 efficacy. Beginning a dialogue with local  
16 community education councils would be a good  
17 starting point.

18 New York City's PCB remediation plan  
19 will provide a national model that likely will be  
20 followed by other states and other school  
21 districts across the country, and it is critical  
22 that we ensure that our plan is comprehensive, our  
23 process is transparent and our results are  
24 indisputable. I look forward to working closely  
25 with the City and EPA to make all New York City

1 public school buildings 100 percent PCB-free.

2  
3 (QUESTION AND COMMENT SESSION BEGINS AS FOLLOWS:)

4  
5 MS. AYALA: We're going to open it up to  
6 the questions and comments now. Anybody coming  
7 up, can you come up in the order of the number  
8 that you have. So, I'll be calling number two and  
9 three. Please identify yourselves for the  
10 stenographer to take down names.

11 MR. HERNANDEZ: Sure. Good evening, I'm  
12 Eduardo Hernandez. I'm a parent from the Bronx.  
13 My concern -- it look like this containing in  
14 place problem sound like just like the OSHA  
15 problem for bad asbestos, which every year the  
16 federal employees are all required to take  
17 mandatory yearly training. And, that kind of  
18 program works fine in the workplaces when you're  
19 dealing with adults, but we're dealing with kids  
20 here. Kids like to poke, shooove, pat, stick their  
21 fingers everywhere and then they will eat  
22 everything little thing that they can find, so I  
23 don't think that just containing in place is an  
24 appropriate approach for school kids. Then you  
25 have -- you're going to be relying on the

1 ventilation units. We all know ventilation units  
2 go out, they go bad, and for anybody, including  
3 the federal or local government, knows when the  
4 units go bad, it takes months and years to  
5 replace, so that's something that needs to be  
6 considered also. The other issue we will be  
7 relying on custodial staff to maintain good  
8 housekeeping. When the City hires a crew of -- a  
9 cleaning crew that will be moving from school to  
10 school wiping everything down, nine of the local  
11 janitors and custodians just to be wiping all day,  
12 I don't think that's going to work either. So,  
13 that's my comment. I think you have to look at  
14 the -- because I have concerns about the  
15 custodians, from what I understood. Somebody  
16 explained that most of the samplings were done  
17 window open, which is a big bias of your sampling  
18 right there. You should do more realistic  
19 sampling; you know, window closed, heating full  
20 blast, just like the way -- first thing in the  
21 morning because even if you have windows open,  
22 they close the windows at night, so why isn't the  
23 sampling first thing in the morning after the  
24 building has been heating up and all these toxic  
25 chemicals are being released. Why isn't the

1 sampling in the morning? You have to look at the  
2 worst-case scenario and give me the whole range;  
3 not just the best-case scenario.

4 Thank you.

5 MR. HAKLAR: I just want -- I just want  
6 to make a couple of -- a couple of quick remarks.  
7 First of all, to allay your concerns about  
8 children touching. We're talking about caulk that  
9 is typically a very, very thin strip or a bead.  
10 And, we've looked at that. We've looked at the  
11 potential for children to touch, to pick, to play,  
12 and what we found was that the greatest, the --  
13 the -- the most probable way of -- of getting  
14 exposed is not from children playing with the  
15 caulk; it was from breathing contaminated air.  
16 Just to allay your concern with that. And then,  
17 just to make a point about -- about the -- about  
18 the windows, we've -- we've heard this comment  
19 before. What -- what we have worked out with the  
20 City, is that -- is that the way the windows need  
21 to be at, what they typically would be for the  
22 season, for the -- for the temperature, for  
23 whatever the weather -- weather conditions; that  
24 would mean in the summertime, they'd be open --  
25 open; in the wintertime, they'd -- they'd be --

1 they'd be closed or -- or -- or -- or cracked  
2 open. One thing you have to realize is a lot of  
3 these schools have ventilation systems which are  
4 called exhaust systems, meaning that they  
5 basically have fans that are on top of the roof  
6 and they pull the air through. You need the  
7 windows cracked. Not thrown all the way open, but  
8 cracked open so that you get air movement. That's  
9 very -- that is very important for the proper  
10 operation of some of these older -- older  
11 ventilation systems.

12 MS. AYALA: Next question.

13 MS. GIORGIO: So, my name is Christina  
14 Giorgio. I'm a staff attorney representing the  
15 public's interest and our firm has been involved  
16 with this journey addressing, you know, the topic  
17 of the PCB problem in school buildings. It's my  
18 knowledge that we've got parents from the Bronx  
19 here, we have parents from Staten Island here,  
20 we've got DOE here, we've have EPA here, so it's  
21 really great. And, another parent from Manhattan.  
22 So, thank's so much for coming. I -- I really  
23 want to start out by urging EPA making this  
24 PowerPoint available immediately; send it out,  
25 it's a great PowerPoint. It's -- it's super



1 helpful.

2 So can we have your commitment to do  
3 that?

4 MS. SCHULZ: Yes.

5 MS. GIORGIO: Fantastic.

6 So, I think, you know, some folks have  
7 raised some of the concerns that I have and I  
8 don't want to belabor certain point, but I do want  
9 to mention a couple things. You know, in -- what  
10 I do for a living, you know, is I try to figure  
11 out what my result is in environmental justice  
12 issues, it's my time to, you know, we -- our  
13 resources are not unlimited at The New York  
14 Lawyers For The Public Interest, so we really have  
15 to focus on all the issues at hand, you now, PCBs.  
16 And I learned a lot this week from your agendas,  
17 as we speak, so there's no question in my mind  
18 that, that was absolutely a great thing for me to  
19 be giving the amount of energy I gave to that.  
20 And additionally, me getting here with the  
21 knowledge that, that -- you know, it's a big  
22 problem that we face. It's more trouble than the  
23 cost because I feel like as a result of the study,  
24 you just don't know how serious a problem it is  
25 and so it's frustrating for me because I don't

1 know how to calibrate the campaign, I don't know  
2 how to calibrate what we're -- when we're talking  
3 to parents and so I just share with you that it is  
4 a frustration that I have because I'm trying to be  
5 helpful in this process and I know that people all  
6 over the country are looking at New York City  
7 right now and so to the extent you have any type  
8 of science that needs to justify, in the sampling  
9 or whatever, it's just that it will reverberate  
10 throughout the country, and I would really urge  
11 the City and EPA to go back and do the panoply  
12 synopsis of scenarios, like our distinguished  
13 guest in the Bronx had pointed out, because it  
14 will give people working on this problem a much  
15 better idea of really what is the problem exactly.  
16 In terms of, you know, the good points you made  
17 about the ventilation systems and we've got the  
18 windows, you know, the various scenarios, I do  
19 want to say that I heard a couple times tonight  
20 that the EPA and the City acknowledged that the  
21 ventilation pathways are the most concerned about  
22 and that's been identified as the most troubling  
23 custodial pathway and yet there seems to be a deep  
24 prioritization of New York testing particularly in  
25 what the EPA, ORD, or Office of Research and

1 Development, has identified as a situation that we  
2 are very concerned about; when there is an acute  
3 event, when there's like a light ballast rupture  
4 and you had smoke emission, this -- your own study  
5 showed that despite -- and it states the air  
6 levels can stay contaminated for longer periods of  
7 time, so it seems to me if there is one thing that  
8 can come out of this hearing is that to get air  
9 testing when we have these types of events, so  
10 that parents can know, and exactly know, the EPA  
11 can know that there are -- that the occupants of  
12 that room are going back into the room in safe  
13 air. Particularly, it might be an acknowledgement  
14 that it's that continuum, just don't tell us what  
15 we need to know about that event. I know that  
16 there is a balance in here with regard to, you  
17 know, can we talk about how worse this problem is;  
18 the 1300 schools 739 buildings, but this is a  
19 limited number of rooms. Is it likely to be gone  
20 by 2016? Of course, I would like to see more air  
21 testing done, but just in terms of the balancing  
22 act, this seems like something so manageable and I  
23 really urge the EPA to listen to the program.

24 I have two -- I -- I think I have two  
25 questions that -- or three questions that I'd love

1 to hear your thoughts on. So, first off, I saw in  
2 the PowerPoint. It says: That the five pilot  
3 schools are representative of the 739 school  
4 buildings in terms of construction, architecture,  
5 building techniques, and things like that. I want  
6 to know, of these five schools, what are the  
7 features of each of these five schools that make  
8 them representative of the 739 buildings out  
9 there? That's my first question.

10 The other question is: Why aren't we  
11 doing -- why aren't we testing more caulk in other  
12 schools? You know, why aren't we actually doing  
13 more sampling of the caulk?

14 And then the last question I have is,  
15 let's see: How are we going to know if we have  
16 another PS 199 on our hands because -- because the  
17 remediation protocol and the -- the preferred  
18 remedy, I don't think really works for 199, so how  
19 do we know whether we're going to have another one  
20 of those and I suspect there's a lot of 199's out  
21 there, and I'm concerned about this thing  
22 happening in all the schools.

23 And, the last thing I would say is: I  
24 just -- I would ask the City to please help the  
25 turnout of these meetings. I have had a wonderful

1 May, going out and meeting with CC's all over the  
2 City and it's been -- it brought tears to my eyes  
3 like the joy of meeting these parents, but they  
4 really have not been informed about these meetings  
5 and this is such an important issue going forth  
6 with remediation. The EPA really needs to reach  
7 out to parents, so I just ask that the EPA has the  
8 ability to reach out and to do so.

9 And, the other thing I just want to say  
10 is: Thank you to the SCA and all the hard work  
11 that you're doing. I know it's been a real  
12 challenge and, I'm very, very appreciative in the  
13 amount of the time and effort you're making. And,  
14 of course, the EPA with all your steadfast  
15 attention to this issue, and we're looking forward  
16 to getting a great plan.

17 MR. HAKLAR: Christina, you may have  
18 to remind me about some of those questions you had  
19 asked.

20 MS. GIORGIO: So, I would love for you  
21 to walk us through what are the architectural or  
22 construction features of the five pilot schools  
23 that make them representative of the 739 school  
24 buildings in this action?

25 MR. HAKLAR: What I'll have to do with

1 the specific characteristics, I'll have to defer  
2 to -- to the City.

3 MR. HOLDEN: The City technically  
4 proceeds, but generally, I can give you some  
5 parameters. First, we look at the age of the  
6 school. PCBs we felt would be the most prevalent  
7 in schools built in 1950 -- or they were renovated  
8 significantly from 1950 to 1978, so we looked at  
9 the vintages of the schools, and we went back to  
10 some that were built in the 1950s, early '60s, and  
11 then some that were built in the '80s. Ballasts  
12 wouldn't be a threat depending upon the years that  
13 the schools were built. The materials could be  
14 different as well. We didn't know, but we tried  
15 to get a -- a range of vintages of the school  
16 first thing. We have -- generally, schools in New  
17 York City are built with brick and block  
18 construction. The newer schools, some of them  
19 have a curtain wall whathaveyou, but without using  
20 PCBs anymore, so most of the schools, whether they  
21 were built in the '50s, '60s or '70s, some type of  
22 brick or block construction. And then, I think  
23 another very important feature is the type of  
24 ventilation. I know Jim mentioned it before.  
25 Some of the older schools don't have full HVAC,

1     that's, you know, a central air conditioning  
2     systems; they operate with what was the state of  
3     the art at the time; and that is, rooftop  
4     ventilation and fans that pull the air out, that's  
5     why the windows need to be open because it draws  
6     air from the outside, so what we did is: We found  
7     some schools that have ventilation systems like  
8     that, including PS 199, 309 Brooklyn is another  
9     one, and then some of the other schools that were  
10    kind of the earlier stages of central air  
11    conditioning, I think 178 in the Bronx is a good  
12    example of that, to see how ventilation may have  
13    an impact on the -- on the schools. The sizes of  
14    the schools are different. The populations are  
15    different. The classes were -- you know, some  
16    parameters; sometimes we have middle schools,  
17    sometimes we have elementary schools. 199 is an  
18    elementary. So, we have different school  
19    populations. So, we looked at all of those  
20    things, you know, with my colleagues with the EPA  
21    to try to get a representative to cross sample of  
22    schools so we wouldn't have -- when we get the  
23    various work and activities from the school, the  
24    different types of remediation of caulk and the  
25    wipe and certainly the ballast, we try to find a

1 cross-section, as best as we could.

2 MS. GIORGIO: So, this is -- and, how  
3 are we going to know whether there's another PS  
4 199 out there?

5 MR. HAKLAR: Well, you have to realize  
6 that at this point, one of the questions that we  
7 asked -- or we've asked the -- the peer reviewers  
8 was how do you prioritize the schools. Obviously,  
9 schools like PS 199 is of great concern to us.  
10 The peer reviewers came back with certain  
11 opinions. Again, we are in the -- after receiving  
12 all the comments, we will be -- we will be  
13 evaluating that and we -- and we still have -- we  
14 still have a ways to go with -- with -- with the  
15 City to -- to finalize a -- a -- a plan that can  
16 be implemented citywide. This is a -- what --  
17 what was presented tonight as a proposed citywide  
18 plan. I -- that's my response to you.

19 Number three?

20 MS. AYALA: Yes, number three.

21 MS. GIORGIO: So, this -- this point I'm  
22 making is there seems to be a devaluation of the  
23 air testing. I think there might have been a  
24 series of problems with the air testing.

25 MR. HAKLAR: One of the things that --



1     that -- that I usually press on -- on the audience  
2     here is that: Under -- under our Federal PCB  
3     Regulations, there is no requirement to test the  
4     air. We have developed some screening levels, but  
5     they are not regulatory levels. They are -- it --  
6     it -- we've had discussions with the City on --  
7     on -- on air testing.

8             I don't know if the City wants to add  
9     anything?

10            MR. HOLDEN: The only thing I wanted to  
11     mention is that as part as the Preferred Citywide  
12     Remedy, we are looking at different types of  
13     tasks; one is a passive sampling and that is part  
14     of the citywide plan, so we will be implementing  
15     that and see how that process works, and full  
16     consideration in the citywide plan, so I don't  
17     think it's accurate to say that there's no air  
18     testing, but --

19            MS. GIORGIO: (Speaking without  
20     microphone).

21            MR. HAKLER: Right. Okay.

22            COURT REPORTER: Please use the  
23     microphone and thank you.

24            MS. GIORGIO: I'm sorry.

25            Ross, thank you.

1 I'm particularly trying to focus on all  
2 the options of protocol where air testing is not  
3 included.

4 MR. HOLDEN: And, as part of the program  
5 that we will have going forward, we will have  
6 ancillary types of testing, methodologies, and we  
7 feel, as the report indicated, is that wipe  
8 samples are an appropriate response and test after  
9 such a situation. Some of the peer reviewers were  
10 split, I agree with that, and some of them said  
11 that the -- the wipe samples are certainly an  
12 adequate methodology, so, you know, we're going to  
13 continue working with the EPA on whatever testing  
14 may be appropriate, but as far as the re-occupancy  
15 protocol in issue of what Jim said, I would like  
16 to let you know is that our expert consultants  
17 have been working on this for five or six years  
18 with us and some of the peer reviewers also  
19 believe that the protocols we have in place are  
20 shown satisfactory.

21 MR. HAKLAR: That's it. Okay.

22 MS. AYALA: Next question and comment.

23 MS. FOX: Good evening, my name is  
24 Evelyn Fox. I am a parent in East Harlem. I am  
25 also a community education council member for

1 District 4, which is in East Harlem. I'm here  
2 because they have big concerns. We have so many  
3 schools in our district. One of them was built  
4 back in the 1800s, so PCB, I'm sure, is probably  
5 there. I don't know how informed the  
6 administration is and that's one of my concerns  
7 about what to look for or whether they've been  
8 given information. I know one of the schools  
9 right in my community close by where I live,  
10 parents were given a letter about PCB. There's  
11 currently a school there that houses kindergarten.  
12 So there are several schools that occupy in that  
13 building along with the District 75 special ed, so  
14 parents are concerned about, and they don't know  
15 enough information. I think it's -- my question  
16 is: Is it possible to have a presentation like we  
17 have here in my district because I'm sure  
18 administration as well as parents would like to be  
19 more informed about what's being done and actually  
20 how the testing -- you know, whether there  
21 building's been wiped down, so that's my question.

22 MR. HAKLAR: Thank you. I appreciate  
23 your comment. You make a good comment and a good  
24 point. We'll get back and we'll discuss it and  
25 we'll follow up.

1 MS. FOX: You mentioned the peer  
2 reviewers. Who is that?

3 MR. HAKLAR: Peer reviewers were  
4 plain individuals who were from environmental  
5 companies and one was from the university, and  
6 they all had some type of experience with PCBs.  
7 It wasn't a situation where someone was selected  
8 that knew about water, but didn't know about PCBs.  
9 They were people that worked with PCBs.

10 MR. MADDALONI: Can I add something  
11 too?

12 MR. HAKLAR: Sure.

13 MR. MADDALONI: Hi, I'm Mark  
14 Maddaloni. The peer reviewers are independent.  
15 That's an important part of the work here in the  
16 contract to make sure that those peer reviewers  
17 had no conflicts of interest, that they weren't  
18 working for New York City, or for EPA, or for  
19 anyone else. That's very important part. Not  
20 only do they have to be experts in the field, but  
21 they have to have no conflicts of interest.

22 MS. FOX: Thank you.

23 MS. AYALA: Number six?

24 (No response.)

25 MS. AYALA: Number seven?

1 MS. FREEMAN: Hi, I'm Debra Freeman.  
2 I'm an executive board member of the Salk School  
3 of Science. We're one of the schools that's  
4 waiting to get PCB removal starting in the fall.  
5 My understanding is that right now the schedule  
6 that is in place is reflecting that it will take  
7 place starting at 4:30 on Friday so that it could  
8 be done on an expedited basis in mind with the  
9 schedule. While I would to applaud the expediting  
10 of the process of getting the PCBs removed, I know  
11 that when I first read how long it was going to  
12 be, I was horrified at the same time, I would -- I  
13 have some concerns that I feel that the plan is  
14 being rushed into perhaps without sufficient  
15 looking at the safety and insurance that to the  
16 extent the safety of the children in the schools  
17 and the administration and everyone working in the  
18 schools can be assured to the best way possible.  
19 Looking just quickly at the documents that are  
20 available, I've got several concerns. One of the  
21 concerns that I follow mentioning that additional  
22 studies were required and that none of the  
23 alternatives that PCB has been shown as a sole  
24 remedy to have long term effect. That just  
25 certain jumped out as something that concerned me.

1 I've shared my concerns with prior to the  
2 exhibition of the air testing. I think that's  
3 really important. I have some concern of the  
4 safety precaution in the classroom. They tend to  
5 be insufficient, but I'm not asking the unmovable  
6 furniture, just putting one layer of coating, does  
7 not mean to me to be perhaps sufficient. Given  
8 the time that it's being done, for instance if the  
9 Salk School of Science is taking place on Friday,  
10 the kids are coming back in the classroom on  
11 Monday, that seems to me to pose a very big  
12 concern because it seems difficult for me to  
13 imagine for efficient cleaning to take place if  
14 there really was concerns. I had concerns about  
15 dust control, cleaning, I had concerns about the  
16 modification and I just overall want to make sure  
17 that everything is done to really use best  
18 practices in this area. I also feel like there  
19 has not been sufficient notification. I know that  
20 notices have gone out, but I find that when  
21 notices go out, they kind of get parents are not  
22 likely to be very focused on the issue. I could  
23 tape the meeting tonight at the time at the very  
24 end of the school year, when meetings have come  
25 together like this, it is a very difficult time

1 for parents to get a meeting like this. And,  
2 thank you for my time. I do again applaud the  
3 rush to do this, I just really would like this to  
4 be working to make sure it gets done really using  
5 best practices in the safest possible way to  
6 protect our kids in the schools. Thank you.

7 MS. AYALA: Number eight?

8 (No response.)

9 MS. AYALA: Nine?

10 So we're just going to open the floor to  
11 anybody that has a comment.

12 MR. KUPFERMAN: I'm Joel Kupferman from  
13 the New York Department for the Law and Justice  
14 Project. I've been in this auditorium 12 years  
15 ago -- 13 years ago after 9/11. I was retained as  
16 the attorney for the parents, concerned parents,  
17 of Stuyvesant. There was a big fight over the  
18 toxicity and the cleanup of the school,  
19 particularly this auditorium. We fought from  
20 night to night to get the seats clean. We fought  
21 for nights to make sure that the curtain that was  
22 here was well treated for dust and later be  
23 removed in the right way. It wasn't removed in  
24 the right way. It was removed in the middle of  
25 the night. It was dragged up at school creating

1 toxic problem that took a long time to fight, but  
2 this peer review, we really get the City and the  
3 feds in terms of what they do and also in terms of  
4 testing. Also, we're concerned about: Were there  
5 any biomarkers, has there been any human help,  
6 evaluations described for the students or the  
7 workers?

8 MR. MADDALONI: Well, the City has the  
9 final word. Not to my knowledge.

10 MR. KUPFERMAN: And, it just -- it's  
11 hard -- Christina and I have a hard time of not  
12 alarming people to be, you know, too concerned,  
13 but also we just don't want people to just receive  
14 and listen to what the government is telling you  
15 and basically saying, you know, relax, we're  
16 trustworthy. PCBs just recently has been declared  
17 to be considered by the World Health Organization,  
18 so a lot of the regulatory restrictions and  
19 requirements that you have been told about tonight  
20 are behind the science. The science is ahead of  
21 those regulations. One of the words liked is best  
22 practices, what the government could do, not what  
23 they have to do, but what could they do. Okay.  
24 The one thing we learned from 9/11 is that we --  
25 we didn't do enough testing. We also didn't put



1 enough protection for the people doing the  
2 cleanup, so it's important that every case that --  
3 that goes on here that we really make sure that  
4 the workers are protected. That it's not just  
5 relying on custodians. It could be double checked  
6 and triple checked. Cleanup is a big business and  
7 what happens is that without vigilance from the  
8 outside and from the inside, people get a little  
9 sloppy. It happens in every case. We really want  
10 to make sure that it's there. And also, the law  
11 project is backing the PCB business because we've  
12 been -- we've just been retained to represent  
13 workers who have been, you know, exposed to this  
14 stuff, so there's a lot of good literature out  
15 there, and looking at those, we're talking about  
16 the City, and the Feds, the state should be  
17 involved a lot more, and they've been reticent in  
18 terms of -- of -- of their actions, so we're  
19 available to talk. As we said before, please be  
20 vigilant. And also, we're really concerned about  
21 health evaluations. It's a little scary to hear  
22 that no one is being tested. There are biomarkers  
23 and ways of testing and the City this large with  
24 this many students and these many workers in this  
25 City of teachers, there should definitely be some

1 kind of health testing. We should ask why isn't  
2 that happening.

3 Thank you.

4 MS. FREEMAN: Again, this is Debra  
5 Freeman from the Salt School of Science. I wanted  
6 to add one thing following up on the issue of the  
7 timing from other standpoints besides safety and  
8 health and it has to do with doing it in a way  
9 that allows a school to be used for what the  
10 schools are intended to, it's not just for  
11 teaching, but there are after school programs.  
12 One of the City's movements that the mayor has  
13 been supporting right now is making sure that all  
14 the middle schools have after school programs, is  
15 providing free after school programs to be  
16 available to all the kids to help with home  
17 environment, to help with students that don't have  
18 a home environment that is really a good place for  
19 them. Well, right now the after school programs  
20 are supposed to take place until 6:00 everyday to  
21 help parents that are working and if the example  
22 of Salt is any example of what's going on in other  
23 schools, then they're going to be doing this at  
24 4:30 on a Friday, that will mean that one of the  
25 five daily after-school programs will not actually

1 be able to be run, so I think there's a direct  
2 conflict between the support for these after  
3 school programs and how important they are and the  
4 fact that the cleaning will be taking place, and  
5 be aware of the two things that the after school  
6 programs and the fact that I think it's very hard  
7 to believe that in a short time between Friday and  
8 Monday, sufficient cleanup can be done. I think  
9 there is a strong argument to me for doing it at  
10 another time, like the summer or on school  
11 vacation when there is a longer time period for  
12 cleanup.

13 Thank you.

14 MS. RAVITZ: I'm Amie Ravitz. I work  
15 for the Local 32BJ as an attorney and also I  
16 oversee the schools grievance arbitration work.  
17 My question is very specific. I'm sort of getting  
18 acclimated in this world and, of course, you  
19 represent the cleaners, many of the cleaners in  
20 the New York City public schools. And, I just  
21 want to know what, if any, resources there are  
22 that examine the intact caulk exposure with  
23 somebody who works with the physical materials and  
24 cleaning the classrooms within the schools. In  
25 other words, I understand there's a certain amount

1 of discussion about remediation plan for intact  
2 versus deteriorating caulk, but I still haven't --  
3 I haven't been able to find a resource to look at,  
4 you know, what happens if every night for eight  
5 hours you're cleaning these classrooms and  
6 nothing's broken, there's been no catastrophic  
7 incident, but that's what you're doing all day.  
8 So, is there a resource that I -- that I can be  
9 referred to or --

10 MR. HOLDEN: My name is Ross Holden.  
11 I'm head of the School Construction Authority.  
12 Really, we do the construction in schools, like we  
13 know what we do as far as the caulking when we do  
14 a capital project, but I'm not conversant in the  
15 work that the custodians do everyday. As part of  
16 our work with EPA, there is a circular that has  
17 been provided. It has various protocols in it  
18 that should be followed and becoming the best way  
19 to handle the caulk. For instance, if a custodian  
20 doesn't need to clean it, but rather notifies the  
21 other to bringing in an environmental consultant  
22 contractor with whom the schools facilities has  
23 contracts so they can be handled in an appropriate  
24 way. As far as the SCA is concerned, when we do a  
25 capital project, let's say, of window replacement,

1 we do have to follow certain protocols that we've  
2 created in addition to other protocols that exist  
3 that are statutorily regulatory guidance, such as  
4 asbestos removal or the like, but as far as  
5 handling PCBs, that is done with contractors who  
6 are appropriately trained to do that. We test to  
7 make sure there aren't PCBs that we are going to  
8 dispose of the construction debris and the right  
9 landfill, so that type of thing, so I can take  
10 back your question to the Department of Education,  
11 they may be able to provide a better arrangement  
12 than I can.

13 MS. AYALA: Any other questions or  
14 comments?

15 MS. RESUMA: Hi, good evening, my name  
16 is Carmela Resuma. I work for the DOE, the Deputy  
17 Chancellor Kathleen Grimm.

18 And, I just wanted to address that very  
19 few people were talking about parental petition  
20 that our office helped manage concerning  
21 conditions in school facilities and we're very  
22 concerned about the petition with that labor.  
23 Parents are not getting involved or letters not  
24 going out, please alert us because we are actively  
25 managing that process and we are ready to repeat

1 the program.

2 Thank you.

3 MS. GIORGIO: Where can we contact you?

4 MS. RESUMA: I'm sorry?

5 MS. GIORGIO: Where can we contact you?

6 MS. RESUMA: You can either contact me  
7 directly, or Deputy Chancellor Kathleen Grimm,  
8 that's fine, or send an e-mail to her coordinator  
9 and her e-mail is available on the website.

10 MS. AYALA: Any other questions or  
11 comments?

12 MR. KRAFT: I just need to spread out  
13 here a little bit. My name is Dan Kraft and for  
14 30 years, I was responsible for the Region 2 PCB  
15 Enforcement Program, and was involved in the  
16 beginning of the Pilot Program overseeing the  
17 Pilot Studies during 2010. Commenting on the  
18 comment the gentleman made earlier about testing  
19 under worst-case conditions as opposed to having  
20 windows open, at the last hearing, I also made  
21 that point. And, I think it's very important to  
22 understand that what would make parents happy or  
23 relieved, how can they know that their children  
24 are safe, how can we know that the staff in the  
25 schools are safe from harmful exposure to PCBs.

1 And, I think to be -- to have a solution  
2 protective of health, you have to first of all  
3 look for PCBs under the worst-case scenarios to  
4 determine if it's possible to find PCBs above the  
5 EPA guideline levels. If we can agree that the  
6 health guidelines that EPA developed are  
7 protective, and so if the levels are below that,  
8 we have some confidence that -- that the children  
9 are in a non-harmful environment. When you  
10 looking for a worst-case scenario, you have to  
11 exclude the outside air when you're collecting  
12 samples. Many times the outside air was tested  
13 during the Pilot Program and -- except for one  
14 instance, all of the results come back  
15 non-detected. We do not expect outdoor air to  
16 have noticeable PCB concentrations. If we find it  
17 under the worst case sampling conditions, then it  
18 seems to me there are two alternatives for  
19 addressing the problem: One, is to identify and  
20 remove or contain all the capacitors of PCBs in  
21 schools; and the second, if you can't do number  
22 one, it's to ventilate with outside air to dilute  
23 any PCB air levels to prolong EPA guidance levels  
24 so that the children are not exposed to higher  
25 levels. If you have to use number two, however,

1 we should prescribe maintenance of sufficient  
2 ventilation to ensure the low levels. Now, the  
3 peer reviewers, one of the questions there were  
4 asked is: Was the report comprehensive. And, I  
5 have found, and I commend the City for their  
6 voluminous work that they've done over the past  
7 several years, but I found that the reports in  
8 general were very difficult even for me to  
9 critically evaluate, certainly I think for a  
10 normal parent that doesn't have any experience in  
11 this area. And, you really have to go back to the  
12 original data. And, I would like to quickly show  
13 how -- the way the testing was done, outside air  
14 played a significant role in the low numbers that  
15 were found. The comment was made earlier that the  
16 belief is that PCBs in fluorescent light fixtures  
17 are the most significant source because the levels  
18 were significantly reduced after these fixtures  
19 were removed. Well, one thing that happened with  
20 the air testing after the fixtures were removed is  
21 that instead of keeping the windows closed when  
22 they were collecting the air samples, the windows  
23 were open. Let's start with PS 178 or 176 in the  
24 Bronx. If you look at that data, when we started  
25 with the City, they wanted to have all the air



1 handling system operational in schools with their  
2 handling systems, and where they have exhaust  
3 ventilation, they wanted them operational. We --  
4 EPA agreed, but we wanted the windows closed.  
5 Now, a school that has an air-handling system,  
6 delivers and returns air from a classroom or other  
7 space. It exhausts some of it to be outside the  
8 building and it brings in fresh air, so it's very  
9 possible when you're collecting the sample to have  
10 fresh air being blown into the space you're trying  
11 to measure and the result will be a low value.  
12 And, when they began to test, okay, the very first  
13 round pre-remedial testing, 50 percent of the  
14 spaces of the classrooms, and only four were  
15 tested, and it's important to keep in mind that  
16 throughout the different testing schemes, it was  
17 only a representative sample, about 15 percent of  
18 the spaces that were tested, but pre-remediation,  
19 50 percent of the classrooms did not meet the  
20 guideline. After remediation, which was patch and  
21 repair, none of them met it, so the values came  
22 in -- were even higher. Then they ventilated the  
23 area, opened the windows, blew it out with fresh  
24 air, which was -- which was agreed upon, and  
25 retested. Now, only 27 percent of the -- of the

1 15 rooms that were tested met the EPA guidelines.  
2 After the post-fixture replacement, only 69  
3 percent met the EPA guideline and of the five  
4 schools that didn't meet it, there was  
5 supplemental cleaning and three of those five  
6 schools didn't meet it, didn't meet EPA  
7 guidelines. They looked at the air handling  
8 system and they discovered that it was broken in  
9 that the amount of outside air they were bringing  
10 in was not as much as was indicated on the  
11 controls, so they fixed it to make sure they were  
12 getting sufficient outside air ever since  
13 everything meets 100 percent of the standards.  
14 In PS 309, the first set of pre-remediation  
15 samples that were taken all six schools did not  
16 meet the EPA standard and to refresh people's  
17 memory, for kindergarten and pre-kindergarten, the  
18 standard is 100 nanograms per cubic meter there  
19 and for 1st grade to 8th grade, it's 300  
20 nanograms. In the first round of testing, the  
21 minimum was 838 nanograms and the maximum was  
22 almost 3,000 nanograms. This was testing with the  
23 exhaust systems operating, but the windows closed  
24 and the doors closed. The City immediately did a  
25 second round of testing and those results came

1 back even higher. The average was 1638 nanograms  
2 per cubic meter and the maximum was almost 5,000  
3 nanograms, so they did the remediation and they  
4 sampled again and all six classrooms again failed  
5 to meet the standard. The levels were low. The  
6 highest was 1800 nanograms and the lowest was a  
7 little less than 300. Then they ventilated and  
8 about that time because they found such high  
9 levels, they were tasked to identify the source  
10 and they began -- EPA had no idea why these levels  
11 came back to high. We did not observe anything in  
12 the school with respect to the light fixtures,  
13 there were no evident leaks. The City did not  
14 test the window caulking in that -- in 309 because  
15 there had been a complete window replacement  
16 completed two years earlier and I guess the  
17 thinking was that shouldn't be contaminated, so  
18 they didn't test, and, in fact, in the classrooms  
19 that they tested in PS 309, they were unable to  
20 find other material, caulk-like material, that  
21 qualified as PCB caulk, so here they felt they had  
22 no PCB caulk in the classrooms and yet you get a  
23 reading of 5,000 nanograms, so they looked at the  
24 light fixtures. They opened them up and within a  
25 few days, we were notified that the City would

1 undertake an emergency light replacement project  
2 in both PS 309, PS 199 and in 178, they would  
3 remove the light fixtures in the classrooms that  
4 they were studying, the areas served by the one  
5 air handler, so they began to do that. Now, this  
6 happened in -- about the first week in August, and  
7 as you know, school starts in September, so they  
8 were under the gun to really get this completed in  
9 two weeks. Now, there was another sampling post  
10 ventilation. Before, I believe they took the  
11 light fixtures out. This time, however, they  
12 opened the windows. One hundred percent of the  
13 spaces met EPA requirements. What is the impact  
14 of opening the windows? The City did a study in  
15 PS 199 and found that if the ventilation system's  
16 on and you, when you open the windows, you get  
17 between 15 and 44 air exchanges over the six hour,  
18 roughly six hour, period that it takes to collect  
19 the sample. So, you can imagine. You want to  
20 measure the PCB concentration in a classroom and  
21 while you're collecting that sample, over six and  
22 two-thirds hours, you're having 16 to 44 air  
23 exchanges of the air in that room while you're  
24 trying to collect a sample, so to me, it's not  
25 surprising that you don't find any PCBs. Now, to

1 take this to the extreme, the school that they  
2 were given to test light fixture replacement, PS  
3 3R Staten Island, they did their preliminary  
4 pre-remediation testing. This time, even the  
5 windows were open or the air conditioner was used  
6 while it collected samples. None of the samples  
7 flunked. They all passed. And, they hadn't  
8 removed any PCB- containing fixtures. What kind  
9 of contamination did they find? Was this some  
10 minor contamination? In PS 309, they found 62  
11 percent of the fixtures either have leaking PCB  
12 ballasts or evidence of historical leakage. In PS  
13 199, 68 percent of the fixtures either have  
14 leaking PCB ballasts or evidence of historical  
15 leakage. In 178X, 43 percent of the fixtures  
16 either have leaking PCB ballasts or evidence of  
17 historical leaks. In 3R, the types of data  
18 reported was different. They didn't tell us how  
19 many PCB capacitors or how many that were leaking,  
20 but they reported that 90 percent of the fixtures  
21 were contaminated and 95 percent of the ballasts  
22 were impacted, yet before any of the removal, they  
23 met EPA requirements, so I think it's important to  
24 look first at a worst-case scenario and then look  
25 how you can either remove PCBs or require

1 sufficient ventilation to dilute any PCBs that  
2 might find their way into the air and make sure  
3 that the students are not exposed to high levels.  
4 Now, there's an ongoing routine monitoring to look  
5 at the fixtures for visible leaks, but the  
6 protocol issued by the Department of Education to  
7 the custodians and the building managers, tells  
8 them: Do not open the ballast covers or remove  
9 the light diffusers on your inspection. Just look  
10 for visible leaks. Well, I think the only kind of  
11 leaks that are going to be observed are the  
12 catastrophic leaks. We had no evidence of leaking  
13 in 309 and yet, 60 plus percent of the light  
14 fixtures were impacted. Now, initially EPA  
15 requested that the City in view of this takes  
16 steps to, as quickly as possible, change all the  
17 light fixtures in the schools. And, EPA in early  
18 2009 did inspections at nine schools. They also  
19 found widespread occurrences of leaked PCBs. This  
20 is not something that just happened yesterday.  
21 It's evidence that these leaked PCBs were present  
22 for many years and, in fact, in 1979, the City, it  
23 would have been hoped, had been on top of this and  
24 been inspecting or at least made known to the  
25 custodians that if they have a ballast failure, if

1     there's any residue, they have to have it properly  
2     cleaned up, so this is a -- is a problem that has  
3     been brewing for over 35 years. Thank goodness  
4     that the New York Lawyers For The Public Interest  
5     has agreed with the City to at least expedite the  
6     removal of the remaining light fixtures. That's  
7     it for tonight.

8                 MS. AYALA: Thank you.

9                 MR. HERNANDEZ: Again, I'm Eduardo  
10     Hernandez. A parent from the Bronx. Every study  
11     can be bias. And even famous researchers in  
12     Academia have been caught years later playing with  
13     the numbers, that's why I'm always taking results  
14     of any study with a grain of salt because that's  
15     up to the ethical morals of the researches. How  
16     come the EPA has been putting -- give this part of  
17     this studies to an independent -- not just the  
18     peer review, but the study itself to an  
19     independent group? I know in City College you got  
20     people that are working that are working with the  
21     EPA and consult the samplings of the air. I  
22     happen to build stations and I know the work. You  
23     have a relationship already with people at  
24     Academia City College doing aerosol studies. How  
25     come you haven't approached them to come to do --

1 to be more independent studies, a more -- a really  
2 stronger study? You know, I'm -- you -- you --  
3 accepted with less values.

4 MR. HAKLAR: One of the -- one of our  
5 biggest concerns was that the peer review be  
6 independent and we went through a very lengthy  
7 process to -- with our consultant to make sure  
8 that the peer reviewers that were obtained were  
9 independent, that they were involved, that they  
10 had the -- the knowledge and the expertise to  
11 review the work, but that they weren't in anyway  
12 involved specifically with -- with New York City  
13 or with New York City, with any of these  
14 activities because we didn't want the bias and  
15 what came out of that vetting process were the  
16 three peer reviewers.

17 MR. HERNANDEZ: But I'm not talking  
18 about the peer reviewers. I'm talking about the  
19 researchers themselves, the data collectors.  
20 Those are the ones that need to be dependent. The  
21 peer reviewers don't even know -- they can't be  
22 fooled into the methodologies of the data  
23 collection. They're only going to review the  
24 data. And subject to the integrity of the  
25 research itself, but the data collected -- I'm



1 talking about -- not the peer review because every  
2 study that is published in any major publication,  
3 it goes through peer reviews and then years later  
4 you find out that whoever was the original  
5 researchers ended up cooking books and falsifying  
6 the data. I'm talking about the data collectors  
7 be independent from the DOE, so you have a real  
8 legitimate data.

9 MR. MADDALONI: Again, Mark Maddalone  
10 with EPA. When EPA conducts and performs a study,  
11 we have what's called a Quality Assurance Project  
12 Plan to ensure that the data is collected in an  
13 unbiased matter.

14 Now, I would ask anyone at the City to  
15 comment on your complimentary type of arrangement  
16 to insure quality assurance in your project plan.  
17 Gary, would you care to comment on that.

18 MR. HUNT: Yes, I think there is another  
19 thing that I would add is that the Quality  
20 Assurance Project Plan is written in a particular  
21 format and was reviewed by EPA. EPA actually also  
22 did some complimentary work at another school from  
23 the City of New York that was not part of the  
24 Pilot Study, and they actually reviewed the data  
25 in the SCA report and said that it was -- it was

1 of satisfactory quality, so I think that what  
2 you're asking, I believe if I understand you  
3 correctly, is having a completely independent  
4 party, not the City, not EPA, contracted to do the  
5 work.

6 MR. HERNANDEZ: Yes. It's really they  
7 can't handle this kind of stuff --

8 MR. HUNT: But I think the bias.

9 MR. HERNANDEZ: -- need to be more  
10 thorough than -- itself.

11 MR. HUNT: Well, I guess I might differ  
12 from you because when you have a Quality Assurance  
13 Program that's put in place, the intention of it  
14 is to remove bias regardless of who's doing it.  
15 It's a plan that basically -- statistical  
16 analysis, repetitive analysis, collocated samples,  
17 all sorts of quality assurance provisions that  
18 were all part of these programs that -- to ensure  
19 that there was no bias, and no one, as you say,  
20 was cooking the books. That didn't happen.

21 MR. HERNANDEZ: Yeah, but this  
22 sampling --

23 MS. AYALA: Excuse me. Because they're  
24 transcribing the meeting. You need to come to the  
25 microphone, please.

1           MR. HERNANDEZ: Yeah, but this sampling,  
2 just to get the best-case scenario, the windows  
3 open, that doesn't sound right. It really  
4 doesn't. You got to understand, researchers  
5 sometimes they are bias depending on who it is --  
6 who's funding this research? Sometimes they  
7 become bias just from that, so you -- the research  
8 is alined to what is it that the funding wants to  
9 get at and you can figure, regardless of the  
10 quality -- everybody, even Academia, they all got  
11 quality reviews, but they all know that even with  
12 a set of numbers, you can twist it and manipulate  
13 the same set of numbers to get whatever results  
14 you want. We read the same numbers. I can give  
15 you -- like even the City, it tells you 30  
16 percent, oh, it's improving, really. Really.  
17 Great. Yeah, 35 percent. Okay. That's 35  
18 percent. How about the 65 percent that it failed?  
19 So you can always give the result that you want  
20 based on the funding. Now, if you allow, you come  
21 in. City College have good program and they have  
22 equipment and they have the personnel already in  
23 place doing this kind of work for years. They  
24 even have -- I know to work with the EPA. Because  
25 I know people that go to Manhattan to collect

1 aerosol samples from your sensors from the  
2 building. They do have those, so why don't you  
3 approach them. They're independent. They are  
4 Academia and they've been doing that. And you get  
5 a really objective result. Not what you want to  
6 hear, but they give you more objective results  
7 that you can base your decision on. This thing  
8 doing windows open, that's nonsense. Of course,  
9 you're always going to get good data. It doesn't  
10 matter that you get a million hours of sampling.  
11 If you do it wrong, that's useless. That is  
12 useless.

13 MR. HAKLAR: Okay. Thank you. We hear  
14 your concern and we will respond in our responsive  
15 summary.

16 MS. SCHULZ: Hi, I would just like to  
17 say that no one was trying to cook the books or  
18 cook the numbers. That basically, the sampling  
19 was done under a real-world scenario; I mean in  
20 the seasons when the windows were closed, sampling  
21 was done with the windows closed, in the seasons  
22 when the windows were opened, sampling was done  
23 with the windows open. It was just trying to find  
24 out what the children are exposed -- and teachers  
25 are exposed to everyday in the real world.

1 MS. AYALA: Any other questions or  
2 comments?

3 MS. FREEMAN: I have a question. I  
4 guess following up on the air, with the windows  
5 are open. You know, understanding that apparently  
6 that was the intention to sample based on real  
7 world circumstances, keeping windows closed during  
8 that area, but in light to what was pointed out  
9 before with how radically different the result can  
10 come out based on having the windows open, I'd  
11 like to hear addressed how you feel that, in fact,  
12 the testing can be accurate when having outside  
13 air can make the results inaccurate and  
14 drastically inaccurate.

15 MR. HAKLAR: Well, I guess I have to  
16 differ. We don't believe that the sample is  
17 inaccurate. We sample under what we believed were  
18 real-world conditions, typical conditions. We  
19 weren't hunting for the worst case of the worst-  
20 case scenarios. We went for the initial sampling  
21 if there were PCBs there, our goal was to see what  
22 our children are being exposed to. Children are  
23 not being exposed to the worst-case scenarios.  
24 We're looking for -- we were looking for what was  
25 actually occurring in the classrooms.

1 Mark, do you want to --

2 MR. MADDALONI: Mark Maddaloni. Just  
3 more sampling in the toxicology risk assessment.  
4 So, if we were -- had started, we need to ask  
5 ourselves: Is there a PCB problem in a particular  
6 school. At that point, that's what we might do.  
7 A worst case. Almost seal up the class room.  
8 This is to see if there is even the possibility of  
9 a problem. We already know that. That's history.  
10 That -- this is an issue that needs addressing, so  
11 that's water under the bridge. At this point,  
12 what we really need, what I need to know as a risk  
13 assessor is what are people being exposed to day  
14 in and day out. And, every building, this room,  
15 has some air exchange rate. There are standards  
16 that apply. I am not an engineer. I don't know  
17 them. Maybe Gary does. Three to four air  
18 exchanges per hour is generally what most  
19 buildings recommend, so that's normal and  
20 that's -- it would be unrealistic to test in  
21 hermetically-sealed rooms because children would  
22 not be able to learn. They wouldn't be able to  
23 live in a room like that, so that is not what  
24 would be appropriate. So, again, we can argue and  
25 obviously people have some questions about what is

1 most realistic. Should the windows have been open  
2 just a little less or a little bit more, those are  
3 legitimate concerns and that's why we are here to  
4 hear those, but to say that we should have done  
5 all testing under worst-case conditions, is not  
6 helpful to risk assessment.

7 MR. KUPFERMAN: Joel. We had two  
8 questions. I guess that we can say that risk  
9 assessment is the size of the sample and also the  
10 problem is with averaging. What happens is you  
11 keep on averaging out and you are always going to  
12 come out to a number that's going to be above  
13 adjustable, you know, levels. I think the bottom  
14 mark is that you have so many schools, that when  
15 you have that many schools, some are going to be  
16 the worst-case scenario. You just can't just take  
17 a few or five schools and say that's, you know, an  
18 adequate sampling. The other concern that I have  
19 is that I've been brought in by a few parent of  
20 schools that they were concerned about the  
21 construction next door, so opening the window, you  
22 know, in someways lowers PCBs, but also introduces  
23 all the PM dust and everything else that's there.  
24 The real case scenario is that if you're going to  
25 test with the windows open, that you should also

1 test more than just PCBs. That New York State  
2 leads in diesel-related deaths in the country.  
3 There's a lot of schools that are right near all  
4 the trucks and the buses and everything else, so I  
5 think with the students are entitled to is a  
6 fuller study and not just, you know, an obscured  
7 study. And I guess that's, you know, my concern.  
8 And the other concern is just going back to the  
9 health test. I mean there also -- was there  
10 any -- did EPA consult with any other federal  
11 agency about this problem that tests PCB or anyone  
12 else?

13 MR. MADDALONI: We are working right now  
14 with National Institutes of Health and National  
15 Institutes of Environmental Health Sciences to try  
16 to refine the toxicity database essentially when  
17 it leads to inhalation exposure of PCBs. So, most  
18 of the studies have been done on all exposures  
19 because up until this point, mostly it is believed  
20 that PCB exposure was from diet and it still is a  
21 significant source, but we are working with our  
22 sister agencies at NIH mostly to improve that  
23 database.

24 MR. KUPFERMAN: There is also the  
25 understanding, correct me if I'm wrong, that



1 inhalation has been considered to be a growing  
2 area of concern.

3 MR. MADDALONI: It's a significant --  
4 it's the most significant exposure pathway, as Jim  
5 said, the PCBs in schools. And for the question  
6 about from 32B, about the custodian, I wouldn't  
7 worry so much about that. In fact, I would be  
8 very proud of your custodians because they did a  
9 remarkably good job of keeping these schools  
10 clean, and they're not getting exposed to much.  
11 And they're not putting their hands in their  
12 mouths the way kid do. That's not an issue. Our  
13 issue is with inhalation exposure and that's why  
14 EPA has been recommending indoor air -- indoor air  
15 testing.

16 MR. KUPFERMAN: One more concern is the  
17 reliance on the mechanical ventilation. New York  
18 City law and the sanitary code, you're not allowed  
19 to have classrooms in elementary schools below  
20 ground because there is a belief that the  
21 mechanical ventilation systems sometimes fail, so  
22 here we're talking about the air exchange isn't so  
23 much on the windows, but relying on the  
24 ventilation systems. There are so many schools  
25 that the ventilation systems is not working.

1 Okay. So I think that should be an assumption  
2 that -- that we should look at the worst-case  
3 scenario with the fact that you just can't rely on  
4 mechanical systems that are continuously breaking  
5 down, you know, in the City. So I think we  
6 definitely -- the more and more I hear of what's  
7 been going on and also the City's past history of  
8 not fixing the problems, that there should be  
9 concern and also all the mechanical ventilation  
10 systems should be tested and those results should  
11 be allowed to be reviewed.

12 Thank you.

13 MS. FOX: Again, my name is Evelyn Fox.  
14 He characterized when you said ventilation system.  
15 One of the schools where we got a problem about  
16 PCB, which is a commonly used area which is the  
17 cafeteria where there are five meals in  
18 kindergarten. You know, there's two schools that  
19 share -- actually, three schools that share and  
20 what is confusing to me because you said the  
21 ventilation in schools -- this cafeteria is in the  
22 basement, there's a school in the basement, so I'm  
23 sure that the ventilation system in a basement of  
24 a school is not accurate and I don't know whether  
25 the testing has been done on that. And another

1 concern is: Is the highest concentration in all  
2 of Manhattan of asthmatics in East Harlem where  
3 our schools are located. In fact, we have a pilot  
4 asthma clinic that was put in our neighborhood, so  
5 I don't know how much -- how many of our asthmatic  
6 students are suffering more now and have been more  
7 chronic as a result of what's happening. That's  
8 all I know. That, that's being factored into the  
9 priority making sure to be taking of it.

10 MR. MADDALONI: Mark Maddaloni. As Jim  
11 said, we believe that improved ventilation will  
12 have multiple ancillary benefits and one of them  
13 clearly is dealing indoor air quality as it  
14 relates to allergies; so the better we ventilate  
15 the schools, the better it's going to be for  
16 everyone that is breathing the air in those  
17 schools. It's a very important part of the  
18 overall remediation plan.

19 MS. AYALA: Any other questions or  
20 comments?

21 MS. FREEMAN: This is Debra Freeman  
22 again from Salt School of Science. And, this  
23 comment has to do with parent notification and one  
24 of my concerns with it. And, I'd say that my  
25 biggest concern with it is that I feel that one of

1 the reasons parents also don't show up and raising  
2 up about this issue so much is because I think  
3 that some of the notices have gone out tend to  
4 minimize the concern and make it sound like:  
5 Okay. Well, this is going to happen, but don't  
6 worry, the levels are really low, it's not  
7 anything to worry about. And, that's, of course,  
8 not what it says. It is more complicated than  
9 that, but I will say that, that is really what the  
10 bottom line of what comes across to a parent, and  
11 to a parent who is not very heavily involved, I  
12 think the tendency is to say: Okay. Nothing to  
13 worry about, if they read it at all. And so, I  
14 think the messages are too long and don't really  
15 make people fully aware of the concern. And,  
16 while you don't want to overly alarm people,  
17 perhaps, I think on the other hand, this is a  
18 serious issue and it wouldn't be taking place in  
19 the first place if it wasn't a serious issue,  
20 so -- and I don't think people really realize it  
21 is.

22 Thank you.

23 MS. AYALA: Any other questions or  
24 comments?

25 (No response.)

1 MS. AYALA: With that, I'd like to thank  
2 you all for coming out tonight. You have until  
3 June 30th to comment. And, we're having another  
4 meeting on Thursday the 5th at Queens Gateway  
5 School in Queens.

6 Thank you all for coming.

7 (THE PROCEEDING CLOSED AT 8:30 P.M.)  
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C E R T I F I C A T E

STATE OF NEW YORK )

: SS.)

COUNTY OF NEW YORK )

I, MARIA R. LUCARELLI, a Notary  
Public for and within the State of New York, do  
hereby certify that the foregoing is a true and  
accurate transcript, to the best of my ability,  
of the within proceeding as reported by me  
stenographically at the place and on the date  
hereinbefore set forth.

IN WITNESS WHEREOF, I have hereunto  
set my hand this 16th day of July, 2014.

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MARIA R. LUCARELLI

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